

REMARKS

Reconsideration of this application is respectfully requested.

Claims 3, 18-102, 109, and 125-136 are canceled without prejudice. Claims 1-2, 4-17, 103-108, and 110-124 are currently pending in the application. Claims 1 and 103 have been amended and claims 136-137 are added. No new matter has been added. The support of the amendment can be found in the claims and application.

Attached is a marked up version of the amendments made to the claims by the present reply. The attached page is entitled "Version with Markings to Show Changes Made."

Objection on Multiplicity

The examiner has rejected Claims 1-136 on grounds of multiplicity under MPEP §2173.05(n). In order to expedite the issuance of the present patent application, the applicants accept the Examiner's suggestion and cancel Claims 18-102 and 125-136 without prejudice. Consequently, this objection is traversed.

Objection on Drawings

The Office Action has objected Figures 5a-5c under MPEP §608.02(g) for missing a legend such as "Prior Art". In response, the applicants have included red-lined drawings showing corrections to Figures 5a-5c.

The Office Action further objected references 902 and 1210 for failing to comply with 37 CFR 1.84(p)(5) because they include the references not mentioned in the description. The specification has been amended to overcome the objection on references 902 and 1210.


The Office Action also indicates that "the drawings are also objected to because the top margin of sheet 15 in the drawings is not correct." The applicants are in the process of obtaining the formal drawings, which will have correct margins, for the present application

and they will be submitted before the issuance of the present application. Accordingly, the objection relating to drawings are traversed.

Claim Rejections under 35 USC § 102

The Office Action has rejected Claims 1-2 and 6-12 under 35 U.S.C. § 102(b) as being anticipated by Landis et al (U.S. Pat. No. 4,479,698), hereinafter called ("Landis"). The Applicants respectfully submit that Landis does not anticipate the present invention. However, in order to expedite the issuance of the present application, the applicants have incorporated claim language of Claim 3 into Claim 1 to further distinguish Landis from the present invention. For at least the reason of Landis, which does not disclose a vertical cavity surface emitting laser, Claim 1 as amended should be allowable. Since Claims 2 and 6-12 depend from Claim 1, Claims 2 and 6-12 should also be in condition for allowance.

The Office Action has further rejected Claims 1, 2, 5-17, 103-108, and 119-124 under 35 U.S.C. § 102(e) as being anticipated by Mesaki et al (U.S. Pat. No. 6,217,231), hereinafter called ("Mesaki"). The applicants respectfully submit that Mesaki does not anticipate the present invention. The examiner has correctly found that "Mesaki fails to disclose . . . an oxide vertical cavity surface emitting laser and high precision arms for said first and second members of the alignment system." See page 5 of the Office Action. In order to expedite the issuance of the present application, the applicants have incorporated the claim language of claims 3 and 109, which include the feature of vertical cavity surface emitting laser, into Claims 1 and 103, respectively. For at least this reason, Claims 1 and 103 should be allowable over Mesaki under section 102(e). Since Claims 2, 5-17, 104-108, and 119-124 depend from Claim 1 and 103, Claims 2, 5-17, 104-108, and 119-124 should be patentable over Mesaki under section 102(e). Therefore, the applicants submit that Mesaki does not anticipate the amended Claims 1-2, 5-17, 103-108, and 119-124 under section 102(e).



Claim Rejections under 35 USC § 103

The Office Action further rejected Claims 3-4 and 109-118 under 35 USC § 103(a) as being unpatentable over Mesaki in view of Williamson III et al (U.S. Pat. No. 6,325,551), hereinafter called ("Williamson"). Since Claims 3 and 109 are canceled without prejudice, the rejection under §103 for Claims 3 and 109 is moot. The applicants respectively submit that the present invention is patentable over Mesaki in view of Williamson.

The applicants respectfully submit that a desired outcome that the invention provides cannot be used as the motivation to combine the references if there is no such teaching in the references. The applicants respectfully disagree with the assertion made in the office action that "the motivation being that oxide vertical cavity surface emitting laser are well known in the art of opto-electronic components and the improved speed and efficiency of the high precision arms as taught by Williamson III et al." Since neither Mesaki nor Williamson teaches or suggests a combination between Mesaki and Williamson, the applicants contend that there is no teaching to combine.

Even assuming for the sake of argument that Mesaki and Williamson were combined, the combination would still fail to teach or suggest a method of positioning at least one optical element in a position relative to at least one vertical cavity surface emitting laser. Accordingly, one of ordinary skill in the art would not combine Mesaki and Williamson, because even if there were combined, the combination would still fail to disclose or suggest all limitations disclosed in claim 1. Therefore, claim 1 is patentable over Mesaki in view of Williamson under section 103.

Furthermore, since Claims 4 and 110-118 depend from Claims 1 and 103, Claims 4 and 110-118 should be patentable because Claims 1 and 103 are in condition for allowance as discussed earlier. Federal Circuit has ruled that if independent claims are valid, the claims that depend from the independent claims should also be valid as matter of law. See

Jenric/Pentron, inc. v. Dillon Co., 205 F.3d 1377, 1382 (Fed. Cir. 2000). Consequently, Claims 4 and 110-118 are patentable over Mesaki in light of Williamson under 35 USC § 103.

The Office Action further rejected Claims 18-102 and 119-136 under 35 USC § 103(a) as being unpatentable over Landis, Mesaki, and Williamson, in view of Yoshida et al (U.S. Pat. No. 5,963,696), Steijer et al (U.S. Pat. No. 5,818,990), Cina et al (U.S. Pat. No. 5,042,709), Goto (U.S. Pat. No. 6,075,911), Yuhara et al (U.S. Pat. No. 5,677,973), Gilliland (U.S. Pat. No. 5,812,582), Strand et al (U.S. Pat. No. 5,857,047). Since Claims 18-102 and 125-136 have been canceled without prejudice, the 103 rejection over these canceled claims is moot.

Since Claims 119-124 depend from Claims 103, Claims 119-124 should be patentable because Claims 103 is in condition for allowance as discussed earlier. Consequently, Claims 119-124 are patentable under 35 USC § 103.

CONCLUSION

Based on all of the above, Applicants believe all claims now pending in the present application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

A petition for extension of time for two (2) month is enclosed. No other fees are believed to be due at this time. However, in the event that any further fees are required for this extension or any other matter concerning this response, then such fees are hereby authorized to be charged to White & Case LLP Deposit Account 23-1703.

Applicants thank the Examiner for carefully examining the present application and if a telephone conference would facilitate the prosecution of this application, the Examiner is invited to contact Jim Wu at (650)213-0300.

Respectfully submitted,

Dated: December 2, 2002

By: 

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APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE

I. IN THE SPECIFICATIONS

The specification has been amended as follows:

On page 27, lines 20-24:

In summary, the flexible printed circuit board 102 supports the main electrical components and elements of the optical module, such as the optoelectronic devices 106, driver or amplifier chip 108 and first ferrule 112, as well as providing bending freedom and stress relief to the optical module 100. The flexible printed circuit board 102 is attached to, and partially enclosed by, a housing [902], which is described below.

On page 35, lines 23-27:

A light is mounted above the high-precision arm, emitting optical radiation down into the optical fibers 114 that are packaged in the first ferrule 112. The light flowing down the optical fibers back-lights the fiber cores, and this provides a well-resolved image of the fiber cores under the split-field microscope. The image of the cores 1210 then appear as an array of well-resolved spots under the split field microscope, as shown in **FIG. 12c**.

II. IN THE CLAIMS

Please cancel Claims 3, 18-102, 109, and 125-136 without prejudice.

Please amend Claims 1, 4, 103 as follows:

2. (Amended) A process of aligning and connecting at least one optical fiber to at least one optoelectronic device to facilitate the coupling of light between at least one optical fiber and at least one optoelectronic device, comprising the steps of:
 - a) positioning at least one optical element in a position relative to at least one optoelectronic device in such a manner that when the device and element are in a position proximate to each other, they would be in optical alignment, wherein at least one optoelectronic device is a vertical cavity surface emitting laser;

- b) depositing a first non-opaque material on the first end of at least one optoelectronic device; and
- c) fixating the first end of at least one optical element proximate to the first end of at least one optoelectronic device in such a manner that the first non-opaque material contacts the first end of at least one optoelectronic device and the first end of at least one optical element.

4. (Amended) A process as in claim [3] 1, wherein the vertical cavity surface emitting laser is an oxide vertical cavity surface emitting laser.

103. (Amended) A process of aligning and connecting at least one optical fiber to at least one optoelectronic device to facilitate the coupling of light between at least one optical fiber and at least one optoelectronic device, comprising the steps of:

- a) holding at least one optical element at the end of a first member of an alignment system, and holding at least one optoelectronic device on a second member of the alignment system, wherein the optoelectronic device is a vertical cavity surface emitting laser;
- b) visually locating a target associated with at least one optoelectronic device;
- c) illuminating at least one optical element with a light so that at least one optical element emits optical energy onto at least one optoelectronic device;
- d) changing the relative positions of the optical energy and target so that the optical energy is visually aligned with the target; and
- e) bringing the first end of at least one optical element proximate to a first end of at least one optoelectronic device in such a manner that a gap exists between the first end of at least one optoelectronic device and the first end of at least one optical element.

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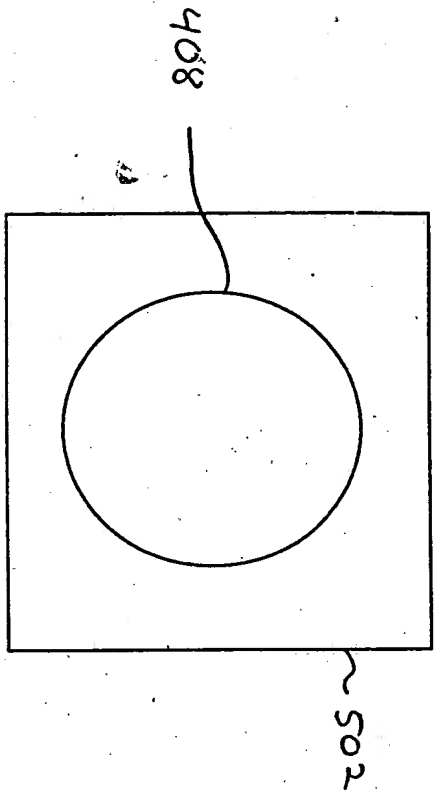


Fig. 5a (Prior Art)

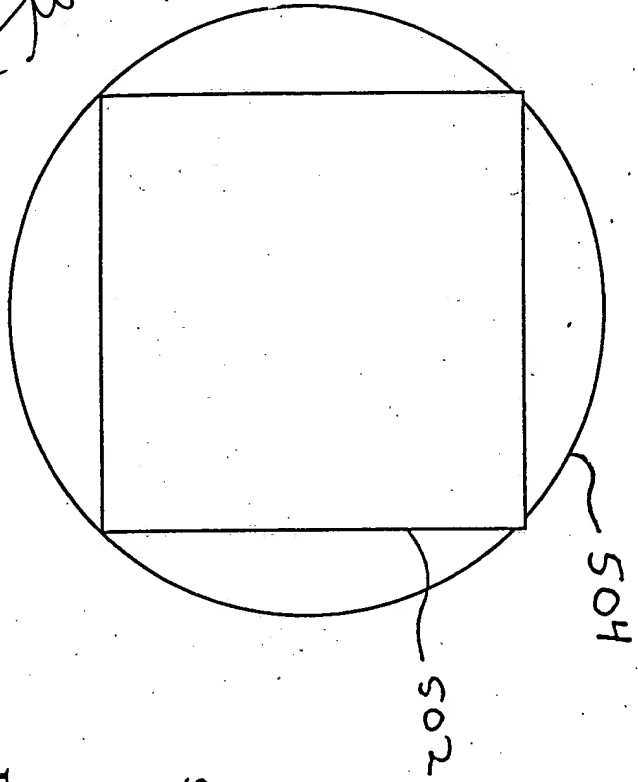


Fig. 5c (Prior Art)

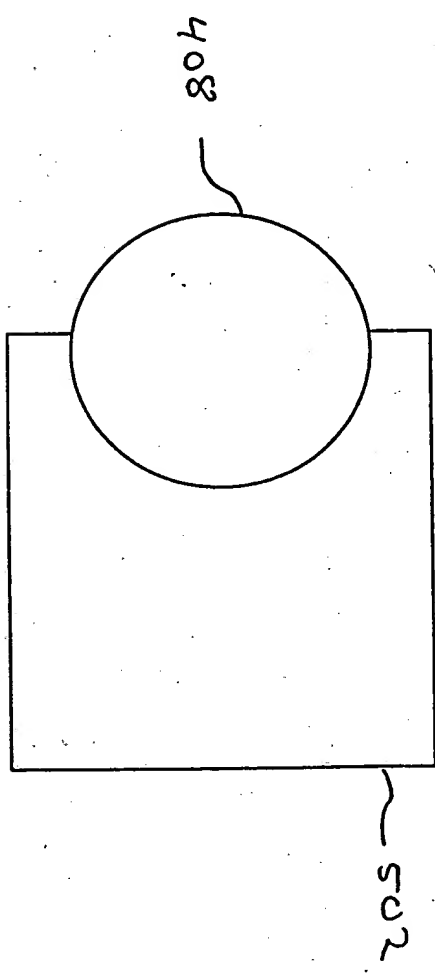


Fig. 5b (Prior Art)

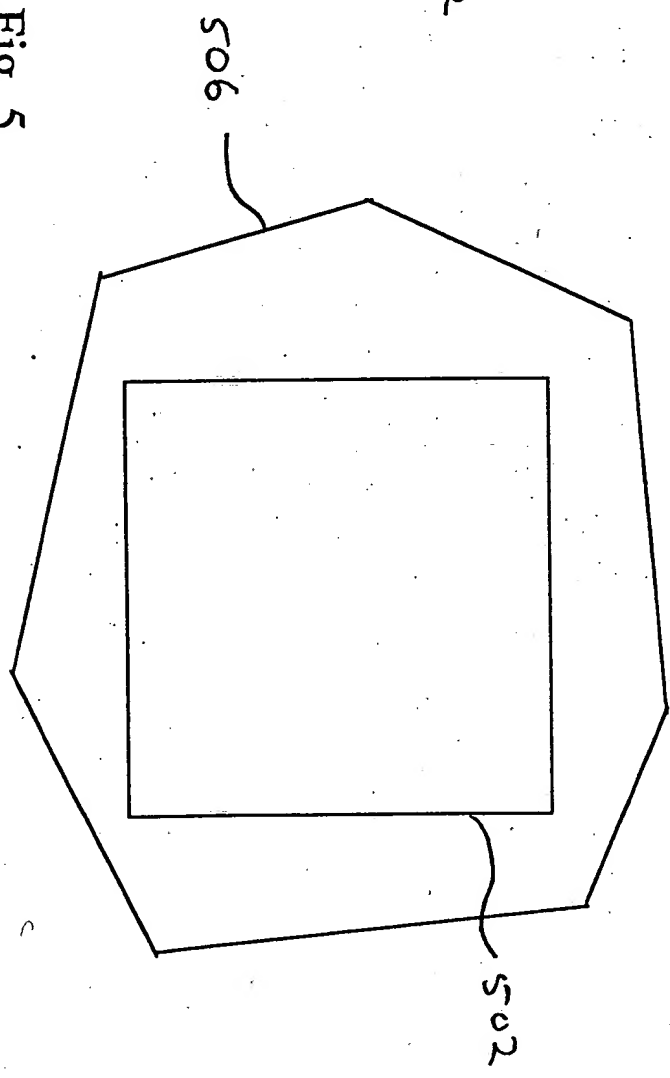


Fig. 5

Fig. 5d